work, a rather full and critical survey of which, we have endeavored to convey to our readers.

We have seldom read a work which has proved so interesting and suggestive, and none which has been pervaded by a more admirable spirit. Most happily does Prof. Vulpian combine in his own person, the talents of an investigator and critic of a rare order, and a faculty for lucid exposition almost unrivalled. He has enjoyed splendid opportunities, and has worthily comprehended and improved them. This work alone should place him in the front rank of living physiologists. To us it is no wonder he should have won quite recently, not only the position of Dean of the Faculty of Medicine, but better still, the seat in the Academy of Sciences, at Paris, so long held by Professor Andral, recently deceased.

II.—HAMMOND: DISEASES OF THE NERVOUS SYSTEM.

A Treatise on the Diseases of the Nervous System. By William A. Hammond, M. D. With one hundred and nine illustrations. Sixth edition, re-written, enlarged and improved. New York, D. Appleton & Co. Chicago, Jansen, McClurg & Co., 1876; 883 pages.

But few American works have succeeded in attracting more attention among the profession abroad than this of Dr. Hammond's. In our own country until quite recently, it has been the only text-book in the hands of practitioners and students, on the subject of which it treats. The author has been peculiarly fortunate not only in imparting a practical turn to his work, but in the time of its publication. It met a felt want, both in our own country and Great Britain, limited as it was in its scope.

It consisted at first, and it still consists, of a series of essays, chiefly on the more common forms of nervous disease, without any preliminary consideration of general principles such as fall within the scope of a critical introductory essay.

Readers of the earlier editions, or rather reprints, will see at once that the work has undergone great changes in almost every part, and has many substantial additions not found in it as at first issued. The fear of rendering the volume too bulky, and the uncertain position, in the nosological scale, of many diseases placed by recent authors as belonging to the nervous system, are among the reasons given by the author for the omission of vari-

ous affections which many readers—and we are among them—will be disappointed in not finding in the present edition. This is particularly the case with respect to cerebro-spinal meningitis. Dr. Hammond says that he has been led as a result of his study to think "that it cannot in any sense be regarded as a disease of the nervous system." As a result of considerable personal experience with cerebro-spinal meningitis and of a study of its literature extending over several years, we have been led to a directly contrary opinion. This judgment we hope to be able to justify at some time in the not distant future, in a special monograph on this singular affection. Dr. Hammond has also excluded from his work all consideration of diseases of the "sympathetic," or vaso-motor nervous system. With the justice of this decision we may attempt to deal at a later period in this notice.

The work has been so long before the profession, and has been so extensively and on the whole favorably noticed in the medical press on both sides of the Atlantic, that we shall consider a detailed review unnecessary. But we will not let the opportunity pass of giving expression to our views as to its merits, under various relations.

The divisions of the work are simple, and are almost identical with those adopted by Jaccoud, in his *Traite de Pathologie Interne*, (Tome I., p. 98-528, Paris, 1860-1871,) and consists in five sections: I. Diseases of the Brain; II. Diseases of the Spinal Cord; III. Cerebro-spinal diseases; IV. Diseases of the cerebro-spinal nervous system; and finally, V. Toxic diseases of the nervous system; including under these principal heads 54 separate articles.

The volume opens with an "introduction," different, however, in its scope and subject matter, from what most readers would expect *a priori*.

It consists in a description of "the instruments and apparatus employed in the diagnosis and treatment of diseases of the nervous system," such as the ophthalmoscope, cephalohæmometer, æsthesiometer, thermometer, Becquerel's disks, Dr. Lombard's thermo-electric differential calorimeter, the dynamometer, the dynamograph, electrical apparatus, cauterizing apparatus, etc., etc. The remarks under these heads, in a treatise like the present, are very properly brief and practical.

Cerebral congestion is the first subject treated, and is divided in the usual way into active and passive. Active congestion is sub-divided into six kinds: viz., the apoplectic, the paralytic, the convulsive, the soporific, the maniacal, and the aphasic, being a modification of the classification of Andral. If these kinds of varieties are intended to have simply a clinical significance, they may be admitted, if the true pathological identity at bottom of these different forms is not obscured by their names. They are all, forms of one and the same pathological condition, that is, congestion, the difference in symptoms being chiefly dependent on a difference in seat or extent of the morbid process. But on

this ground there is no clear limit to the refinements we may make in the classification of *kinds or varieties of congestion.*

The description of symptoms and course is very full and accurate, and the remarks, under the head of diagnosis, are peculiarly instructive.

In speaking of cerebral congestions we do not find any attention given, or at any rate none commensurate with their importance, to two points we have come to look upon as highly significant. We refer, first of all, to what may be called *localized* or *regional* congestions. The proof of their existence, it is true, is chiefly inferential, but none the less cogent. We believe such congestions to be extremely common. The so-called *aphasic* congestion of Dr. Hammond is an example. We believe that a very small area of the brain may be the seat of a congestion not participated in by any other part, and that it may occur and disappear even with a certain degree of suddenness. We believe that in this way the balance or harmony of action of different parts of the brain, *inter se*, may be disturbed or even destroyed, as in some cases of sudden emotional excitement, without adequate apparent cause, or in cases of sudden, and sometimes uncontrollable impulse, in which we seem obliged, to account for the phenomena, to postulate a sudden influx of blood, with a proportionately sudden increase in function,—a state of vascular erethism—while the presumed volitional centres are in a state of comparative inaction, owing to a relatively diminished blood supply. This subject, we say, is a highly important one, and it would seem to have wholly escaped a formal recognition by Dr. Hammond.

The second point to which we would call attention, is an explanation of the confusion of mind, the feelings of pressure in the head, the vertigo and many other symptoms, which follow changes of posture, and attempts to use the mind in many cases of congestion, especially those which having been of an active character have passed to the passive stage. We have come to look upon many of these symptoms as produced in the following manner: The small arteries and veins, or blood vessels, of the brain, whatever may be said by some to the contrary, do pass in small tunnels through the nervous substance larger in diameter than are the vessels themselves. There is a space between the outer surface of the vessel and the inner surface of the channel for it in the brain substance, and this is the so-called "perivascular space," about which so much has been said. This space in the ordinary way is filled with fluid. If the vessel expands or contracts, as it does with great frequency, and in varying degrees, the "perivascular" fluid faithfully follows its fluctuations. In all ordinary cases the vessel never expands so as to touch the surface of the canal of nervous substance. But in cases of extreme loss of tonus, or disease of their walls, the vessels either habitually or easily dilate to such a degree as to press against the surrounding nervous substance with the effect of

giving rise to a list of varying symptoms dependent on the seat and extent of morbid action. Besides the enlargement of the vessels, there may be extravasation of more or less solid matter into the perivascular spaces, so as to enable the vessels without any marked enlargement, to exert the pressure on the surrounding nervous tissue we have mentioned. This view is not wholly neglected by Dr. Hammond, but does not have the stress laid on it which it seems to us it deserves.

Neither do we find in the account of the pathology of the disease, that use made of our present knowledge of the mechanism and modes of action of the vaso-motor nervous system, that should be in the treatment of such a subject.

The remarks on treatment are the best we have met with, taken altogether. And this fullness and practical excellence, in the department of therapeutics, is one of the chief reasons for the favor with which the work has been received by the profession.

The article on cerebral anæmia is excellent throughout. We can only commend it to our readers as one of the most practical and useful to which we can direct them. Forty-two pages are devoted to a most interesting article on cerebral hemorrhage, which for practical purposes leaves little to be desired. But comparatively short remarks are made on certain interesting sequelæ of cerebral hemorrhage, such as contractures of the members, and arthritic affections.

Passing by the fourth chapter, on cerebral meningeal hemorrhage, we come to "partial cerebral anæmia from obliteration of cerebral blood vessels, (ischæmia.")

These "partial anæmias" are chiefly the result of either embolisms or thromboses of the arteries or veins of the brain. These important subjects (embolism and thromboses) have attracted an unusual share of attention during the past few years. Dr. Hammond very fully describes the causes and symptoms of both processes. But the pathology of these affections is now so well understood as to leave but little chance for mistake on the part of so intelligent and practiced an author, or for suggestion on the part of the reviewer.

Passing by the article on "cerebral softening," we come to that on *aphasia.* It is perhaps the most elaborate in the volume. A very full outline of the literary history of the disease is given, as in former editions. The conclusions to which Dr. Hammond is led, as to the location of the organ of speech in the brain are:

1. "That the organ of language is situated in both hemispheres, and in that part nourished by the middle cerebral artery.

2. "That while the more frequent occurrence of right hemiplegia, in connection with aphasia, is in great part the result of the anatomical arrangement of the arteries which favors embolism on that side, there is strong evidence to show that the

left side of the brain is more intimately connected with the faculty of speech than the right." Dr. Hammond introduces next a number of cases from his own practice to illustrate his views. A long but interesting extract from one of Dr. Ferrier's papers in the *West Riding Reports* is given, concerning the pathology of aphasia, and with which the author but partially agrees. No special remarks are made on the "causes, the prognosis, diagnosis, morbid anatomy, and pathology," since they have been considered under other heads.

In basilar meningitis, especially if of syphilitic origin, Dr. Hammond relies with great confidence on large doses of the iodide of potassium. He is strongly inclined to accept as a distinct form of disease of the brain, that described by Dr. Charles Elam as "cerebria," a supposed peculiar form of cerebritis. But we pass the remaining chapters on diseases of the brain until that on *insanity* is reached, with the simple remark that we know of nothing better within moderate compass in the English language, on the subjects of which they treat.

The later and practical parts of the chapter on Insanity, as we may soon take occasion to show, are deserving of high commendation. But we cannot say as much for its introductory, and what may be called its scientific or philosophical portion. In his remarks on the *nature of mind*, we believe Dr. Hammond has been in a measure misconceived, and he must continue to be, from the character of the language he employs. He would be taken quite naturally as a materialist, as he has been, and he has only the baldness of his own expressions to blame for it.

For ourselves, we will not now enter into the questions that are so frankly and distinctly raised by Dr. Hammond in his remarks on the nature of mind, since it is our purpose to discuss them at length, in a short time, in a review of the *Physiologischen Psychologie*, of Wundt, of Heidelberg. But we will not permit the occasion to pass without offering a few comments.

Then, first of all, according to our author, what *is* mind? His meaning may be gathered perhaps from the following passages:

"The brain is the chief organ from which *the force called mind is evolved.*" "*All nervous force partakes more or less of the character of that which we call mind.*" "The mind differs from forces in general in being compound, that is, in being made up of several other forces." "The mind, therefore, as before stated, *is a compound force evolved by the brain.* and its *elements are perception, intellect, emotion, and will. The sun likewise evolves a compound force, and its elements are light, heat, and actinism.* One of these forces, light, is again divisible into several primary colors, and the intellect of man one of the mental forces, is made up of faculties. It would be easy to pursue the analogy still further, but enough has been said to indicate how

clearly the relationship between brain and mind is that between matter and force."

From these statements we may extract the following propositions:

1. Mind has the same relation to brain, that force has to matter.
2. Mind differs from forces in general, in being compound—that is, it is composed of several other forces, and these elements or forces, "are perception, emotion, intellect, and will."
3. Mind is a form of force evolved by the action of the brain.
4. Nerve force is more or less of the same character as mind.

To these propositions we would briefly invite the attention of the reader. The first declares that the relation of mind to brain is the same as that of force to matter. Now, what is the relation of force to matter? We presume Dr. Hammond intended he should be understood, as holding that force is a product of, or is "evolved" by matter. That it has and can have no existence apart from matter. It is absolutely dependent on it. Either this, or it is substantially independent, for there is no third alternative. But is it settled that force is a product of matter? Most certainly not. We have just as good reason for thinking that force produces, or evolves matter, as for thinking that matter produces or evolves force. We have looked into this subject with no little care, and whatever others have been able to do, we have not discovered a single fact which renders such a view probable, as that which Dr. Hammond and others appear to entertain. What is meant when it is said that matter "evolves" or produces force? But if it is not a fact that matter evolves force, then what light does this doubtful relation throw on the more doubtful one of mind to brain?

It is true Dr. Hammond offers certain reasons, wholly devoid of novelty, but having the sanction of the authority of Mr. Bain, for believing that mind is evolved by brain; but it seems a little strange it should not be perceived these "reasons" are as agreeable to the one current hypothesis, in respect to the relation of brain to mind, as to the other. They can be easily and naturally adapted to the view that the brain is simply the material instrument of the mind, by means of which it obtains its knowledge of, and communicates a knowledge of its states and acts to, the outer world. These "reasons" no more establish the one hypothesis than the other, and hence establish neither. But even if it were true, as it has never been shown to be, that matter evolves force, does it follow that "brain evolves mind?" Not at all, so far as we can see. We are perfectly prepared to admit this view when it is established, as it must be, if at all, on the basis of physical proof, for the conclusions are based on physical premises.

2. But we will call attention, briefly, to the second proposition: viz., that mind differs from forces in general, in being compound, or as composed of several other forces.

We cannot adequately discuss the questions raised in this statement, in the present notice. But what is meant by "forces in general" in this case? Does Dr. Hammond refer to physical forces simply? If mind is a "compound force," what are its component elements? Dr. Hammond tells us plainly: they are "*perception*, *emotion*, *intellect* and *will*." But what does Dr. Hammond mean by the word "force?" We may well ask this question when we are told that among the component "forces" of mind, one of them is "perception." Can it be that *perception* is a *force?* We have always looked upon perception simply *as an act* of the mind, and not a force. We would quite as soon speak of running, or sneezing, or winking, as component forces of the person performing the acts, as to consider perception in this way. A force is that which causes or transmits motion in matter, it is *some*thing; but perception is *no*thing; it is simply and at once, a state, and an act of the knowing sentient mind, or if you please, *living* brain; at any rate it is not a force, in any sense in which we know that term.

But if it is doubtful whether "perception" is a force, what shall be said of *emotion?* We must confess that to us the effort is painful, when we try to conceive of the emotions, say of joy, or hope, or love, or of beauty, as "*forces.*" They are, according to our way of thinking, nothing but mere *states of feeling* produced in the sentient mind, or if you please, organism, by certain appropriate objects, or by certain other states of the mind. We deny that either perceptions or emotions are forces, in any proper sense of the word. We deny that mind is a "compound force," and challenge the proof of the correctness and also of the utility of such a view.

Then as to the third proposition: viz., that mind is a "form of force evolved by the brain." What proof has ever been offered of the correctness of this statement? We make bold to say there is none that will bear examination. And the same must be said in regard to the view that "nerve force is more or less of the character of mind." Apart from its indefinite character, we hold the statement to be destitute of foundation in fact, and we pledge ourselves to endeavor to justify the declaration now made.

There are two principal hypotheses, as every one knows, in respect to the relations of mind and matter. According to one of them, mind has no existence apart from the material structure of the brain. It is a product of brain action; it *is* brain action. This common view as it is, with many, is, if we do not misunderstand him, the one held by Dr. Hammond. The other hypothesis holds that mind has, or may have an existence substantially independent of the brain, which is regarded as the instrument of mind, by means of which it establishes relations with the material world. During the life of the individual, brain and mind co-exist and co-act, but at death the mind separates from the brain, the organization of which perishes, but

the mind continues to exist in some state as mind. And this view from time immemorial, has been held, and is yet held, by thousands whose intelligence and candor none may safely impeach, without involving a retort which it is much more easy to make than to elude. But this latter hypothesis, it is said, is antiquated; but this is no reason why it may not be true. It is said, also, that it is devoid of utility. This is true only when it is bidden to do service on a theatre not its own, or to give proofs of its utility in terms utterly foreign to its scope and pretensions. Under such tests any hypothesis must fail.

It is said, moreover, that there are no proofs of its correctness. This statement is at once true and untrue. It is true that it has no *immediate physical* proof in its favor, but it seems to be forgotten, that by the terms of the case it cannot have. It is untrue, for the indirect, or inferential proofs are abundant, as to its truth. And such proof may be just as valid, though not so palpable, as direct physical proof. But these are large questions, and cannot be discussed within the narrow limits of an ordinary review. We only offer a few comments on them in passing. We must say that the portion of Dr. Hammond's work in which he treats of questions that require in their successful discussion, large speculative culture and capacity, is to us the least satisfactory of all. But we must hasten on, leaving such questions to be examined more at length, and with more leisure in the future.

Dr. Hammond defines insanity as "a manifestation of disease of the brain, characterized by a general or partial derangement of one or more faculties of the mind, and in which, while consciousness is not abolished, mental freedom is perverted, weakened, or destroyed." To give an unobjectionable definition of insanity is not possible in the present state of our knowledge, but the one we have quoted is perhaps as serviceable as any.

In respect to the vexed subject of classification, Dr. Hammond offers a simple scheme far from being novel, but it has certain merits. He divides cases of insanity into seven classes. The scheme has a psychological basis. The divisions made are as follows:

"1. *Perceptional insanity*, characterized by the tendency to the formation of erroneous perception, either from false impressions of real objects (illusions), or from no external excitation whatever (hallucinations).

"2. *Intellectual insanity*, characterized by the existence of delusions.

"3. *Emotional insanity*, characterized by uncontrolled or imperfectly controlled predominance of one or more of the emotions.

"4. *Volitional insanity*, in which there is an inability to exert the full will-power either affirmatively or negatively.

"5. *Mania*, characterized by the union of two or all four of these forms in the same individual.

"6. *General paralysis*, a peculiar form of insanity, attended by progressively advancing loss of mental and motor power.

"7. *Idiocy and dementia*, the first due to the fact that there are original structural defects in the brain; the second resulting from the supervention of organic changes in a brain originally of normal power."

It would be easy, of course, to raise objections to this system of classification, but it is easy to raise them against any system that can be framed, from the standpoint of our present knowledge. Before entering on the consideration of the forms of insanity above enumerated, Dr. Hammond gives definitions of such frequently recurring terms, as "illusion," "delusion," "hallucination," "incoherence," and "delirium." This is a practice we would commend to a more general observance on the part of systematic writers on such subjects.

But it will be impossible in this notice to discuss the subject of insanity as it is treated by Dr. Hammond. Within the same compass we do not know of a more safe and useful guide for the practitioner of medicine in this class of diseases.

We have so recently given space to a review of affections of the spinal cord, as to render it unnecessary in behalf of our readers, to go at length into a consideration of this subject, as it is found in the present work.

Congestion of the spinal cord—a most important theme—is briefly but excellently treated. Anæmia of the cord is next in order. We have heretofore taken exceptions to the views of Dr. Hammond, in respect to spinal anæmia, and it may not be amiss for us to embrace this occasion more fully to state our opinions. We do not deny the fact of spinal anæmia, nor the possibility of limited tracts of the cord becoming anæmic. But we do deny that there is any satisfactory proof that there is anæmia of the posterior columns of the cord in spinal irritation. In spinal irritation, the affection is not so much *circulatory*, as *nutritive*. Coincident with this latter state there even may be congestion of moderate degree. But we do not have the space in this notice to discuss the subject as it deserves. We have done so to some extent in a lecture in the American "Clinical Series," edited by Dr. Seguin, of New York.* We would refer such of our readers as may feel an interest in the subject to that lecture.

Then again, under the head of "anæmia of the antero-lateral columns," we have the morbid conditions grouped, which have received the following names: "spinal paresis, functional paralysis, reflex paralysis, inhibitory paralysis, paralysis from peripheral irritation, etc." But in the first place we doubt the existence of the peculiar regional anæmia here mentioned. Then again, apart from the indefiniteness as to what is included by Dr. Hammond in the "antero-

*On certain forms of morbid sensibility, etc.

lateral columns,"—whether the white matter alone, or the gray also,—we object to the propriety of grouping under such a pathological condition, the really different forms of paralysis, which are enumerated in the above list. Is it certain that the morbid condition in "reflex paralysis" is the same as in "inhibitory paralysis," and the same in either as in some cases arising from "peripheral irritation?" Can these so-called different forms of paralysis be satisfactorily analyzed so that they can be referred to "anæmia of the antero-lateral columns?" We do not believe it. If we had not already, in recent numbers of the JOURNAL, discussed anæmia of the cord in a notice of the works of Vulpian and Leyden, we would give expression at some length to our views on this highly interesting subject. Dr. Hammond is inclined to adopt the theory held by certain physiologists, and among them Dr. S. Weir Mitchell, of Philadelphia, who attributes such kinds of paralysis as have been enumerated above, chiefly to exhaustion of the nervous centres, rather than to anæmia from vasal spasm. But we have elsewhere had occasion to express an opinion to the contrary: viz., that prolonged vasal spasm is quite possible, and undoubted examples can be given of its existence in other parts of the body. Dr. Hammond expresses his views as to the mode of production of such paralysis in the following language: "My own opinion," says he, "is that paralyses of apparently peripheral origin are referable to anæmia, produced in some cases by vaso-motor spasm, *and in others by nervous exhaustion.*" (p. 413.)

Do we misconstrue our author, when we understand him to say that certain cases of anæmia are produced by "nervous exhaustion?" How can this be?

Dr. Hammond examines at some length, the views of M. Vulpian on the subject under consideration, as set forth in the second volume of his work cited above, but rejects them.

He adopts the neurotic theory of progressive muscular atrophy, in which we fully agree with him, as our readers scarcely need to be told. In "progressive facial atrophy," Dr. Hammond has noted an interesting fact in relation to the state of the muscles of the affected part. Fibres taken from the buccinator muscle showed atrophy of the fibre, *without degeneration.* There was also atrophy of the perimysium of the fibre. This is an interesting observation, but one known to have occurred under other relations, and to which we intend soon to call attention in another publication.

The division of the work relating to the spinal cord, closes with a description of several of the rarer forms of disease, which have been isolated in recent times by such observers as Tuerck, Charcot, Pierret, etc., and also, softening and tumors of the cord. But we must refer the reader to the work itself for details. Such diseases as cannot be localized

in the cord or brain, are designated "cerebro-spinal." Under this head hydrophobia stands first. In this article Dr. Hammond gives the full details, with illustrations of the morbid appearances found in the brain and cord, in a case of hydrophobia which he enjoyed the opportunity of examining. The principal changes observed, related to the cortex, medulla, and cord. Those in the cortex were found in the superficial layers of cells which in Dr. Hammond's preparations were almost perfectly replaced by adventitious matter such as fat. In the deeper layers of cells of the cortex, the changes became less marked but were of the same character. The corpus striatum was in a normal condition. The pons was the seat of enlarged vessels and extravasations. Sections through the medulla, especially so as to pass through the nuclei of the pneumogastric, and hypoglossal nerves, showed similar vascular changes as the pons, and besides, fatty degeneration and marked atrophy of the nerve cells of the nuclei in question.

Essentially the same changes were found to exist in the anterior and posterior horns of gray matter, near the cortical portion of the cord.

Dr. Hammond does not think it possible at present to answer the question, whether hydrophobia is a blood or a nerve disease, but thinks it may be both.

In regard to the nature of epilepsy he would agree in most things with Dr. Hughlings Jackson. But it will be impossible for us to review the subjects treated at length in the remainder of the volume, such as "convulsive tremor," "chorea," "athetosis," "hysteria," "hysteroid affections," "multiple cerebro-spinal sclerosis," "paralysis agitans," "anapeiratic paralysis," "exophthalmic goitre," etc.

There are points in all these articles, in which we would differ from the author, but there are many more to be highly commended. Several of these topics have been recently made the subjects of notice in our pages, and we shall give attention to some of them in a review in our next issue, of one of the volumes which relates to nervous diseases, of Ziemssen's Hand-book.

Under the head of "Diseases of the peripheral nervous system" many interesting affections are grouped, some of them, however, not being strictly diseases of the peripheral nervous system, as we have taken occasion in a former number to show at length, especially in a review of the work of Erb of Heidelberg. For example, we have under this head one group," neural hyperæsthesias," or *neuralgias*. We object to this arrangement on several accounts. In the first place we believe the neuralgias to be incorrectly named "hyperæsthesias." For in many cases there is actual anæsthesia in the sphere of a nerve which is the seat of a most distressing neuralgia, as in nearly all old neuralgias of the trigeminus. Then again this arrangement ignores the physiological fact

that there is a certain degree of separateness of the senses of touch, or contact, and of pain, not to mention other forms of general sensibility. In neuralgia there is always *hyperalgesia*, or an increased sensibility to painful impressions, but not necessarily, or at all, *hyperæsthesia*, or exaltation of the *sense of touch*, as seems to be assumed in the arrangement of Dr. Hammond. But finally, we object to the idea as incorrect, which seems to prevail in the minds of many, that neuralgias which clearly arise from lesions of the sensory nerves, are therefore to be regarded as peripheral, as distinguished in fact or by implication from central neuralgias. In even the so-called peripheral neuralgias, the condition of the centres is none the less important, and hence not to be disregarded. The centre, on account of its intimate connection with the diseased nerve is soon brought into that irritable, painful state, which must be recognized as the essential back-ground of all true neuralgias. A simple mechanical lesion of a nerve, as by sudden laceration or any kind of sudden destructive violence, may give rise to *pain*, though the related centre should be in a healthy state; but such pain is not neuralgia in the ordinary clinical sense, partly because that irritable state of the sensory centres is absent, without which a true neuralgia is not possible.

But we cannot pursue this subject farther, nor indeed will our space permit us to continue our examination of Dr. Hammonds book at greater length. We have only been able amid the excellences of the work, to call attention to a few points in some of which, with the interests of truth at heart, we would differ in opinion from the author. We have by no means exhausted the features of the work, which require critical survey, and to some of them we may return in the future.

Dr. Hammond impresses us as a laborious and skilful observer, bold and inventive, but too often hasty in reaching conclusions; and a skilful and accomplished author, but in a measure, deficient in analytical and generalizing powers: and these features are displayed in a noticeable manner in the treatment of the more critical and recondite parts of his subject, which is confessedly, as a whole, the most difficult in medicine. The points in which the work of Dr Hammond will challenge the most attention, are its descriptions of disease, and its fulness and practical character in the domain of therapeutics, qualities which must win for this new edition a still higher place in the regards of the profession on both sides of the Atlantic.

We are not surprised that a translation has been called for abroad. It is being translated into the French by Dr. Labadie-Lagrave, at Paris.

No single member of the profession in the United States, has done more to develop neurological medicine, or in that sphere

has done more to attract the favorable attention of the profession abroad. Most heartily do we congratulate Dr. Hammond on his well-earned success in the department of medicine he has wisely chosen to cultivate.

III.—THE WEST RIDING LUNATIC ASYLUM REPORTS.

THE WEST RIDING LUNATIC ASYLUM MEDICAL REPORTS. Edited by J. Crichton Browne, M. D., F. R. S. E. Vol. V. London, Smith, Elder & Co., 1875; 292 pages.

Dr. Crichton Browne and the able corps of medical men he gathered about him at the West Riding Asylum, offer a wholesome example to others in like circumstances for the observation of mental and nervous disorders. In this volume, the fifth of the series, we have a collection of papers, real contributions to human knowledge, on various subjects connected with mental and nervous pathology and physiology and the histology of the nervous system. The majority of these papers are by the officers of the West Riding Asylum, or those lately connected with that institution; a portion are by other neurologists, like Prof. Ferrier, Dr. Hughlings Jackson, and Dr. J. Milner Fothergill, who find this work a convenient and useful medium for the publication of some of the best results of their labors.

Of the fifteen articles or memoirs contained in this volume, we can give detailed attention to only a few in the present notice; others will be given in abstract more or less fully in the periscope of this and succeeding numbers of the JOURNAL. Nor shall we follow the order in which they appear in the volume, or confine ourselves solely to those which are perhaps the most important as regards subject or treatment, but will rather notice more some of those points which seem most to call for remark or criticism.

Dr. Hughlings Jackson's contribution to this volume is upon a subject important both to the medical man and the jurist, that of "the temporary mental disorders after epileptic paroxysms." We quote his title, which in a measure exhibits his peculiar views in regard to this form of attack, not, however, intending